NOAA Weather Wire Service (NWWS) Partners Brief

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April 27, 2015

NWWS-2 Status

- Roll-Out
- Satellite (SBN/NOAAPORT)
- Open Interface (OI)
- End User Client (EUC)
- Webpage
- Issues
- Schedule

NWWS-2 Roll-out

- Began April 1, 2015
- 90-day transition/dual operation until 6/30/15
- Additional client notifications required;
  - Computer Sciences Corporation (CSC)
  - Weather Message Software, LLC
  - Others (???)
- Currently day 27 of 90

Satellite (SBN/NOAAPORT)

- Channel 101-105 - No Change in product dissemination
- Channel 201 - Added August 2014
  - NWWS Products only
  - Phase I testing indicated 100% product availability.

- SBN/NOAAPORT transponder changed October 2014
  - Loss of product availability noticed on 1.8m dish
    - Reported at October Partners Meeting.
  - Issue prevalent on all dish sizes.
    - Reported at AMS Partners Meeting
  - Solutions sought;
    - Filter testing – completed testing
    - Software testing (NOVRA) – completed testing
    - Software for high packet rate (NOVRA) – currently testing
    - L-Band Filter (TBD)- awaiting test schedule

SBN/NOAAPORT

- Satellite basics
  - Larger dish size has higher product availability.
  - FCC approved dish size is > = 3.7m

Dish Size		Product Availability%
4.2m	FCC approved	99%
3.7 m	FCC approved	98%
2.4 m		97%
1.8 m		96%

NWWS-2 Design: Implementing Open Interface with SBN/NOAAPORT with any dish size provides the highest product availability at 99.8%

NWWS-2 Open Interface (OI)

- **Establish Account**
  - User Information
    - Contact information
    - IP Address
  - *NWS Provided information*
    - *User_id* and *password*
    - URL: nwws-oi.weather.gov
    - Port: 5223
    - Chat “nwws”
- **End User Client (EUC) Disclaimer (optional)**

NWWS-2 Open Interface (OI)

- **Software Clients**
  - NWS EUC (PC/Windows) – Disclaimer required
    1. Satellite (SBN/NOAAPORT Channel 201) ingest
    2. Open Interface (OI) ingest
    3. Both ingests with de-duplication of messages
  - Other XMPP clients*
    - Pidgin (PC);
    - Adium (Mac);
    - Java chat
    - Google

** These clients indicate WMO header only and will require additional software development to access message text.*

NWWS-2 End User Client (EUC)

- **End User Client v0.1.5**
  - Two types
    - 32-bit
    - 64-bit
  - Both
    - Archive
    - Parse
    - Store
    - Provide message text
  - EUC Manual (Initial Draft)

NOAA End User Client (EUC)

- **Planned Enhancement(s)**
  - Filter on *product_type* and *origination*
- **Planned Upgrade(s)**
  - Correct storage buffer issue
  - Alarm when OI connection lost

NWWS Webpage

- **Continuing to Update**
- **Change to system presentation based on new NWS re-organization**
- **Add problem resolution page (~FAQ)**
  - NWWS.Help@noaa.gov
  - NWWS.Issue@noaa.gov

ISSUES

NWWS-2 Issues

- **Satellite reception issue of product availability**
  - Tested out-band and in-band filters.
  - Tested three (3) NOVRA software solutions.
  - Have ongoing test of NOVRA firmware solution to "High Packet Rate" and possible loss.
  - Will test "L-band" filters in May.

NWWS-2 Issues

- **OI *user_id* and *password* provisioning**
  - Timely
  - Not-timely

NWS undergoing a significant re-organization, re-alignment and shift of IT resources. System works well when it works.

NWWS-2 Issues

- File won't unzip where I want it? Gives a name/extension too long error.
  - *Unzipping closer to root or using small directory sub-directory names has resolved current unzipping issues.*

NWWS-2 Issues

- **What software do I use for OI ingest?**
  - NWS End User Client (EUC) - Windows
  - Other XMPP client software
    - Pidgin (PC)*
    - Adium (Mac)*
    - Google
    - ?????

* *Additional software development will be needed to read the product ingest, archive selected products, and parse the information.*

NWWS-2 Issues

- **What software do I use for Satellite ingest?**
  - NWS End User Client (EUC) – Windows
  - For Channel 201 (all dish sizes); a nominal DVB-S2 satellite receiver (similar to the Novra S300) software.
  - For larger dish users (3.7m+); satellite receiver software for Channel 101-105.

EUC has three (3) ingest capabilities; SBN/Channel 201, OI, or Both (201 & OI).

NWWS-2 Issues

- **Which is best – Satellite or OI?**
  - OI provides the fastest product ingest capability.
  - OI provides the higher single ingest product availability.
  - Satellite still has the highest product availability when the Internet goes down.
  - Use of BOTH Satellite and OI provides the highest product availability for NWWS.

NWWS-2 Issues

- **The EUC message files (and data sent over XMPP) are not formatting correctly**:

  CSC End-of-Line is **<CR><CR><LF>.**

  The XMPP server is sending **<LF><LF>.**

  – Because the OI is XML-based, it will conform to XML End-of-Line handling.

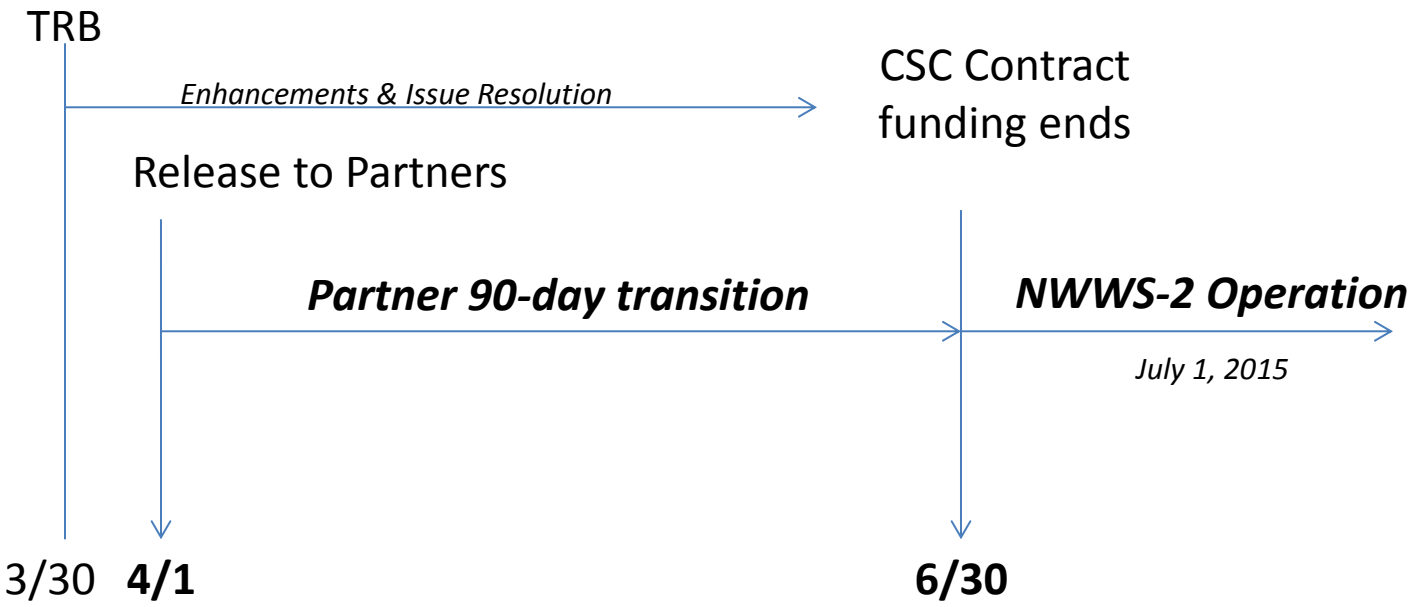
  – The EUC does not modify products ingested.

NWWS-2 Issues

- The OI is a XML based service which means that the output will conform to the following rule found within the XML RFC:

- http://www.w3.org/TR/REC-xml/#sec-line-ends
- *2.11 End-of-Line Handling*
- *XML parsed entities are often stored in computer files which, for editing convenience, are organized into lines. These lines are typically separated by some combination of the characters CARRIAGE RETURN (#xD) and LINE FEED (#xA).*
- *To simplify the tasks of applications, the XML processor must behave as if it normalized all line breaks in external parsed entities (including the document entity) on input, before parsing, by translating both the two-character sequence #xD #xA and any #xD that is not followed by #xA to a single #xA character.*

NWWS-2 Schedule Moving Forward



Partner Teleconferences to be scheduled - Bi-Weekly or Monthly

May 4 May 18

ACTION ITEMS


NATIONAL WEATHER SERVICE


NOAA
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE

THANK YOU.

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